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Director, Air and Waste Management Division
United States Environmental Protection Agency
1200 Sixth Avenue
Seattle, Washington 98101

SUBJECT: Sumitomo Metal Mining Pogo LLC (Pogo), 2014 Annual Report – CISWI Unit ID 412

Dear Sir or Madame:

Enclosed is the Sumitomo Metal Mining Pogo LLC (Pogo) Unit 412 Incinerator 2014 Annual Report and Deviation Report. Pogo's incinerator is subject to the requirements of the Clean Air Act New Source Performance Standards (NSPS) for Commercial and Industrial Solid Waste Incineration (CISWI) Units, 40 C.F.R. Part 60, Subpart CCCC (Subpart CCCC). Pogo's incinerator is a small, remote incinerator under 40 C.F.R. Part 60 Subpart CCCC and subject to the emission limits in Table 8 of Subpart CCCC. In 2014, Pogo installed a new, two-stage wet scrubber to comply with the emission limits of Subpart CCCC.

This revised Annual Report is submitted to correct Pogo's February 4, 2015 submittal. That report did not clearly distinguish between applicable operating limits before and after the incinerator was equipped with a wet scrubber.

Prior to the wet scrubber installation and performance test, the applicable operating limits were identified in Pogo's Petition submitted to Environmental Protection Agency (EPA) in accordance with 40 C.F.R. § 60.2115. In October 2014, the annual performance test was conducted on Unit 412 equipped with the new wet scrubber. During that performance test, incinerator and scrubber operating parameters were monitored and operating limits were established according to 40 C.F.R. § 60.2110. The October 2014 performance test demonstrated that Unit 412 with a wet scrubber is operating in compliance with all the applicable emission limits in Table 8 of Subpart CCCC. The performance test report has been submitted to EPA and Alaska Department of Environmental Conservation (ADEC).

As required in 40 C.F.R. § 60.2200(b), Pogo hereby submits the operating limit values that were established during the October 2014 performance test.

Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.

If you have any questions, please contact me at 907-895-2879 or email at keri.depalma@smmpogo.com or Ben Farnham at ben.farnham@smmpogo.com or 907-895-2730.

Sincerely,



Keri DePalma
Environmental Manager

cc: John Kuterbach, ADEC
Jamie McKellar, ADEC
Pete McGee, ADEC
Kyle Moselle, ADNR
Heather Valdez, EPA
DEC.AQ.Airreports@alaska.gov

Annual Report - CISWI Unit ID 412
Revised February 25, 2015

Sumitomo Metal Mining Pogo, LLC, is the operator of a small, remote solid waste incinerator, Unit ID 412, that is subject to the Standards of Performance for Commercial and Industrial Solid Waste Incineration (CISWI) Units as set forth in 40 CFR 60 Subpart CCCC. The following annual report is submitted in accordance with §§60.2205 and 60.2210. The annual report presents to the 10 required items identified in §60.2210(a) through (j). A deviation report, as required in §§60.2215 and 60.2220, is included as Attachment 1.

a) Company name and address.

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(b) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

Based on information and belief formed after reasonable inquiry, I certify the accuracy of the statements and information in and attached to this document.



Keri DePalma
Environmental Manager

3/2/2015

Date

c) Date of report and beginning and ending dates of the reporting period.

Date: January 30, 2015

Reporting Period: January 1, 2014 through December 31, 2014

(d) The values for the operating limits established pursuant to §60.2110 or §60.2115.

A wet scrubber was installed in September 2014, a performance test was conducted in October 2014, and the test report was finalized on December 1, 2014 and submitted to EPA and ADEC. Two sets of operating limits were applicable during the reporting period. Prior to the performance test, the operating limits consisted of values established according to §60.2115.

- Operating limits prior to December 1, 2014¹:

PARAMETER	OPERATING LIMIT	AVERAGING PERIOD
Waste charge rate	Maximum charge weight = 53 lb/charge	Rolling 1-hr average
Waste charge interval	Minimum charge interval = 15 min	none
Temperature of the primary combustion chamber	Minimum primary combustion chamber temperature = 1,381 °F	Rolling 3-hr average (of 1-min DAS measurements)
Temperature of the secondary combustion chamber	Minimum secondary combustion chamber temperature = 1,813 °F	Rolling 3-hr average (of 1-min DAS measurements)
Primary combustion chamber burn time	Minimum duration of primary chamber burndown cycle = 5 hr after final waste charge each operating day	none
Secondary combustion chamber burn time	Minimum duration of secondary chamber burndown cycle = 2 hr after completion of primary burndown cycle	none
Waste Composition	Maximum daily percent (by weight) of a given waste component: MSW ^a = 76% Sludge = 49% Adsorbs = 27%	Rolling 3-day average of daily waste-component percents

^aMSW = municipal solid waste, and consists of the combined weights of Type II (dry) and Type III (wet) wastes

¹ Operating limits from Pogo's Table 1 of the Site-Specific Operating Limit Report submitted to EPA February 6, 2014.

- Following performance test report dated December 1, 2014, new operating limits were established according to §60.2110:

PARAMETER	OPERATING LIMIT	AVERAGING PERIOD
Waste charge rate	Maximum charge weight = 241 lb/hr	Rolling 3-hr average of hourly charge weights
Scrubber pressure drop	Minimum pressure drop = 2 inches of water column (in H ₂ O)	Rolling 3-hr average of 15-min pressure drop records
Scrubber liquid flow rate	Minimum scrubber liquid flow rate = 10 gallons per hour (gph)	Rolling 3-hr average of 15-min flow rate records
Scrubber liquid pH	Minimum scrubber liquid pH = 8.5	Rolling 3-hr average of 15-min pH records

(e) If no deviation from any emission limitation or operating limit that applies to you has been reported, a statement that there was no deviation from the emission limitations or operating limits during the reporting period.

Not applicable: an operating limit deviation report is attached.

(f) The highest recorded 3-hour average and the lowest recorded 3-hour average, as applicable, for each operating parameter recorded for the calendar year being reported.

OPERATING PARAMETER	HIGHEST / LOWEST RECORDED AVERAGE	AVERAGING PERIOD
Operating Parameters Monitored Prior to 12/1/14		
Max Incinerator Charge Rate (lb/charge)	80 lb/charge	1-hr
Min Temperature: Primary Combustion Chamber (°F)	1,114	3-hr
Min Temperature: Secondary Combustion Chamber (°F)	1,690	3-hr
Max Waste Composition:		
MSW (%)	100	3-day
Sludge (%)	30	3-day
Adsorbs (%)	22	3-day
Operating Parameters Monitored as of 12/1/14		
Max Incinerator Charge Rate (lb/hour)	290	3-hr
Min Pressure Drop Across Scrubber (in H ₂ O)	2	3-hr
Min Scrubber Liquor pH	8.3	3-hr
Min Scrubber Inlet Liquid Flow Rate (gph)	10	3-hr

(g) Information recorded under §60.2175(b)(6) and (c) through (e) for the calendar year being reported.

Only §60.2175(e) is applicable. The dates and times for which data shows a deviation from applicable operating limits are identified in Attachment 1. Attachment 1 also provides a description of the deviations, the reasons for the deviations, and a description of the corrective actions taken.

(h) If a performance test was conducted during the reporting period, the results of that test.

A performance test was conducted from October 7 to October 9, 2014. The results are summarized below.

POLLUTANT	UNITS ^a	PERFORMANCE TEST RESULT	EMISSION LIMIT (Subpart CCCC Table 8)
Particulate Matter	mg/dscm	56.69	270
Sulfur Dioxide	ppmvd	0	1.2
Nitrogen Dioxide	ppmvd	135.3	170
Carbon Monoxide	ppmvd	3.7	13
Dioxins/Furans, TEQ Basis	ng/dscm	0.116	31
Dioxins/Furnas, Total Mass Basis	ng/dscm	0.649	1,800
Hydrogen Chloride	ppmvd	1	200
Cadmium	mg/dscm	0.0041	0.67
Lead	mg/dscm	0.0675	0.26
Mercury	mg/dscm	0.0013	0.0035

^aAll test results are corrected to 7% O₂, dry basis

(i) If you met the requirements of §60.2155(a) or (b), and did not conduct a performance test during the reporting period, you must state that you met the requirements of §60.2155(a) or (b), and, therefore, you were not required to conduct a performance test during the reporting period.

Not applicable

(j) Documentation of periods when all qualified CISWI unit operators were unavailable for more than 8 hours, but less than 2 weeks.

Not applicable: no such periods occurred.

ATTACHMENT 1

DEVIATION REPORT
Incinerator Unit ID 412

**DEVIATION REPORT - POGO MINE
REPORTING PERIOD JANUARY 1 - DECEMBER 31, 2014**

Sumitomo Metal Mining Pogo LLC (Pogo) operate a small, remote, propane-fired incinerator that is subject to the Standards of Performance for Commercial and Industrial Solid Waste Incineration (CISWI) Units as set forth in 40 CFR 60 Subpart CCCC. In September 2014, the incinerator was equipped with a wet scrubber to comply with the applicable emission limitations of Subpart CCCC. The following deviation report is submitted in accordance with §§60.2210(g) and 60.2215.

Table A-1 provides a summary of the deviations that occurred during the reporting period, including the specific operating limit, the applicable averaging periods, and the corresponding dates.

All deviations listed in Table A-1 occurred during the incinerator operating day, typically between approximately 7:00 am and 5:00 pm, and durations varied from several minutes to several hours on the specified dates. The notes to Table A-1 provide descriptions, causes, and corrective actions for each type of operating limit deviation.

Based on the results of two performance tests that were conducted in 2013 and 2014, it is not likely that any of the deviations reported in Table A-1 caused any emission limit exceedances. The results of both performance tests showed that emissions of regulated pollutants were well below the applicable limits during a wide variety of operating conditions, charge rates, and waste-composition mixtures.

TABLE A-1
SUMMARY OF 2014 OPERATING LIMIT DEVIATIONS

OPERATING LIMIT	DATE ¹	NOTES
Waste Composition : MSW > 76% ² , 3-day rolling average	1/5, 1/9-1/12, 1/29-1/31 2/1, 2/2, 2/4, 2/8-2/11, 2/14-2/26, 2/28 3/1, 3/2 8/18-8/22, 8/25, 8/26 9/27-9/30 10/1-10/7, 10/11-10/22, 10/24, 10/25, 10/27 11/1-11/3	[1]
Incinerator Charge Rate > 53 lb/charge ² , 1-hr rolling average	1/19 2/23, 2/28 3/1, 3/2 8/16-8/26 9/25-9/30 10/1-10/5, 10/7-25, 10/27-10/30 11/1-11/4	[2]
Primary Combustion Chamber Temperature < 1,381°F ² , 3-hr rolling average	1/9-1/13, 1/16, 1/19 2/2, 2/4-2/8, 2/10, 2/11, 2/13, 2/18, 2/19, 2/26, 2/27 3/1, 3/2 8/16-8/22, 8/24-8/26 9/25-9/29 10/1-5, 10/7-10/25, 10/27, 10/29-10/31 11/1-11/4	[3]
Secondary Combustion Chamber Temperature < 1,813 °F ² , 3-hr rolling average	2/2, 2/6, 2/11, 2/12, 2/21 11/2	[4]
Incinerator Charge Rate > 241 lb/hour ³ , 3-hr rolling average	12/24, 12/25, 12/26, 12/27, 12/29, 12/31	[5]
Scrubber Liquor pH < 8.5 ³ , 3-hr rolling average	12/23, 12/24, 12/26-12/31	[6]

¹Dates on which one or more deviations of the operating limit occurred in 2014.

²Operating limit established per §60.2115, applicable to the incinerator without the wet scrubber (i.e., prior to 12/1/14).

³New operating limits, as specified in §60.2110, were established during the October 2014 performance test; the test report was issued 12/1/14.

TABLE A-1
SUMMARY OF 2014 OPERATING LIMIT DEVIATIONS

Notes

[1] The waste composition operating limits were originally established during the October 2013 initial performance test. As specified in Pogo's petition submitted to EPA under 40 CFR 60.2115, and approved by EPA in September 2014, the maximum percentage of each waste-type was determined during the test program. The following waste composition limits were established as rolling 3-day average operating limits:

- MSW (as the sum of Type 1 and Type 2 wastes): 76%
- Sludge: 49%
- Adsorbs: 27%

On the dates shown in the table, the 3-day average MSW percentage limit (i.e., 76%) was exceeded one or more times. The incinerator operators during these deviations were not sufficiently monitoring the daily and 3-day average waste-composition percentages. This oversight may have been due in part to the system of monitoring waste-types by hand-written log entries.

This set of deviations has been corrected by the September 2014 installation and use of the wet scrubber to comply with the emission limits of Subpart CCCC. As a result, this operating limit is no longer applicable. New operating limits, as specified in §60.2110, were established by the October 2014 performance test. The final performance test report was issued December 1, 2014 and since that date the applicable operating limits consist of maximum charge rate, pressure drop across the scrubber, scrubber liquid flow rate, and scrubber liquor pH, all calculated as 3-hr rolling averages.

[2] The waste charge rate operating limit was originally established during the October 2013 initial performance test. As specified in Pogo's petition submitted to EPA under 40 CFR 60.2115, and approved by EPA in September 2014, the maximum charge weight was determined to be 53 pounds *per load*, as a rolling 1-hr average of individual charges (typically loaded at 15 to 20 minute intervals). On the dates shown in the table, the 1-hr average charge rate was exceeded one or more times. The incinerator operators during these deviations were not sufficiently monitoring the 1-hr average charge rate. This oversight may have been due in part to the system of monitoring charge weights by hand-written log entries.

Charge rate limit deviations were in part corrected by the September 2014 installation and use of the wet scrubber to comply with the emission limits of Subpart CCCC. New operating limits, as specified in §60.2110, were established by the October 2014 performance test. The final performance test report was issued December 1, 2014 and since that date the applicable

operating limits include the maximum charge rate of 241 pounds per hour, calculated as a 3-hr rolling average.

Pogo has taken corrective actions to prevent future deviations of the hourly charge-rate limit. The use of spreadsheet monitoring has been established, whereby the operator enters actual weights for each charge loaded to the incinerator. The spreadsheet allows the operators to monitor the hourly and rolling 3-hr charge weights in real time, since they are automatically updated and displayed with each data entry.

[3] The primary combustion chamber operating limit was originally established during the October 2013 initial performance test according to the 60.2115 petition. The minimum rolling 3-hr temperature measured during the test was established as the operating limit.

On the dates shown in the table, deviations of the rolling 3-hr average operating limit occurred one or more times. The incinerator operators during these deviations were not sufficiently monitoring the primary chamber temperature.

This set of deviations has been corrected by the September 2014 installation and use of the wet scrubber to comply with the emission limits of Subpart CCCC. As a result, this operating limit is no longer applicable. New operating limits, as specified in §60.2110, were established by the October 2014 performance test. The final performance test report was issued December 1, 2014 and since that date the applicable operating limits consist of maximum charge rate, pressure drop across the scrubber, scrubber liquid flow rate, and scrubber liquor pH, all calculated as 3-hr rolling averages.

[4] The secondary combustion chamber operating limit was originally established during the October 2013 initial performance test according to the 60.2115 petition. The minimum rolling 3-hr temperature measured during the test was established as the operating limit.

On the dates shown in the table, deviations of the rolling 3-hr average operating limit occurred one or more times. The deviations were due to initially low temperatures in secondary chamber at the beginning of the shifts, and were resolved automatically by the incinerator's electronic controls.

This set of deviations has been corrected by the September 2014 installation and use of the wet scrubber to comply with the emission limits of Subpart CCCC. As a result, this operating limit is no longer applicable. New operating limits, as specified in §60.2110, were established by the October 2014 performance test. The final performance test report was issued December 1, 2014 and since that date the applicable operating limits consist of maximum charge rate, pressure drop across the scrubber, scrubber liquid flow rate, and scrubber liquor pH, all calculated as 3-hr rolling averages.

[5] The wet scrubber was installed in September 2014 and the charge rate operating limit was established in the October 2014 performance test. As specified in §60.2110, the operating limit was determined as the 110% of the average hourly charge rate measured during the test. This parameter is monitored for every incinerator charge; the operator enters every charge weight in a spreadsheet which calculates hourly and 3-hr average charge weights.

On the dates shown in the table, deviations of the rolling 3-hr average charge-rate limit occurred one or more times. During this period, monitoring charge consisted of hand-written log entries, and the incinerator operators were not sufficiently monitoring the hourly and 3-hr average charge rates. Pogo has taken corrective actions to prevent future deviations of the hourly charge-rate limit. The use of spreadsheet monitoring has been established, whereby the operator enters actual weights for each charge loaded to the incinerator. The spreadsheet allows the operators to monitor the hourly and rolling 3-hr charge weights in real time, since they are automatically updated and displayed with each data entry.

[6] The wet scrubber was installed in September 2014 and the pH operating limit was established in the October 2014 performance test. As specified in §60.2110, the operating limit was determined as the minimum rolling 3-hr average pH measured during the test. . Pogo has taken corrective actions to prevent future deviations of the pH limit. The use of spreadsheet monitoring has been established, whereby the operator enters the actual pH every 15 minutes. The spreadsheet allows the operators to monitor rolling 3-hr average in real time, since they are automatically updated and displayed with each data entry.

On the dates shown in the table, deviations of the rolling 3-hr average operating limit occurred one or more times. The deviations were caused by an inadequate alarm/notification capability in DAS programming. Corrective actions taken include intensive operator training to prioritize maintenance of pH above the operating limit. Also, Pogo is developing additional DAS programming to notify the operators when pH levels are trending toward the operating limit.